

COUNCIL MEMBERS' MOTION

*For consideration at the Standing Committee on City Finance and Services meeting on
July 15, 2026*

12. Energy Sovereignty and Grid Resilience

Submitted by: Councillor Fry

WHEREAS

1. Vancouver City Council has recently expressed concern around the grid capacity and ability to meet the city's electrical needs;
2. Vancouver has declared a climate emergency and adopted the Climate Emergency Action Plan (CEAP), which commits the City to reduce greenhouse gas emissions, transition away from fossil fuels, and support resilient, low-carbon energy systems;
3. Vancouver City Council has previously directed staff, including through the January 2023 motion "Increasing the Climate-Smart Supply of Renewable Energy in Vancouver," to explore opportunities to expand local renewable energy supply and improve energy resilience. In an April 2024 follow up memo¹ staff reported a modest number of (mostly solar) "net metering" projects. Net metering (now referred to by BC Hydro as self-generation) represents a somewhat complex and onerous process to install solar and feed it back into the grid, necessitating qualified contractors, electrical and building permits, installation, inspections, and applications for BC Hydro connections;
4. New, emerging technologies now enable small-scale, direct to consumer, plug-in solar photovoltaic (PV) systems, including balcony, patio, and backyard installations that can safely connect to household electrical systems through certified smart inverters and specialized outlets, with the potential to feed energy back into the grid or batteries. Coming soon to US and Canada, major household retailers like IKEA² are already marketing and selling home plug-in solar solutions in Europe;
5. Plug-in solar technology undergoing review and certification by electrical safety authorities, standards bodies, and utilities in Canada and the US, and will soon become more widely approved for residential use. Underwriters Laboratories (UL) the independent, safety science company are expected to certify plug-in solar in early 2027³;

¹ City of Vancouver | Memo: Increasing the climate-smart supply of renewable energy in Vancouver
<https://vancouver.ca/files/cov/2024-04-18-memo-to-mayor-and-council-increasing-supply-of-renewable-energy.pdf>

² IKEA | Plug-in Solar Solutions
<https://www.ikea.com/be/en/energy-services/plug-in-solar/>

³ UL Solutions Debuts Testing and Certification Framework for Safer Plug-In Solar
<https://www.ul.com/news/ul-solutions-debuts-testing-and-certification-framework-safer-plug-solar-across-united-states>

6. BC Hydro has, in recent weeks, added Plug-in solar to their [Innovation](#)⁴ page: *“Connecting directly into standard household outlets, these systems could offer a more affordable option for people to generate solar power at home”*. BC Hydro are actively testing new commercially available plug-in solar units to understand how they interact with BC’s grid and home electrical systems. Additionally, as part of real-world testing and assessment BC Hydro also will be looking at electrical panel capacity, wiring, building design considerations, and approval processes such as strata and permits;
7. Distributed, small-scale, direct to consumer plug-in solar generation can:
 - a. Enhance energy sovereignty by allowing residents to generate their own electricity;
 - b. Improve grid resilience by diversifying and decentralizing energy supply;
 - c. Reduce peak demand and strain on centralized infrastructure;
 - d. Support affordability by offsetting energy costs and generating revenue;
 - e. Paired with battery systems enable apartment renters to protect themselves from heat waves with window mounted air conditioning, operating after sundown while protecting the grid; and
 - f. Support equity by expanding access to solar for renters and multi-unit dwellings;
8. Current regulatory, electrical, permitting, and building by-laws in Vancouver are not yet fully adapted to enable adoption of direct-to-consumer plug-in solar technologies at the household scale in anticipation of forthcoming UL and BC Hydro certification and utility interconnection frameworks; and
9. Proactive policy development by the City of Vancouver could help ensure that plug-in solar can be deployed safely, equitably, and effectively for households, businesses, and the grid across the city.

THEREFORE BE IT RESOLVED

- A. THAT Council affirm its support for certification of direct-to-consumer plug-in solar as an opportunity for equitable distributed energy resilience.
- B. THAT Council direct staff to engage directly with BC Hydro on their current plug-in solar Innovation Demonstration and call for partnerships, whereby the City might get involved in testing real world applications for plug-in solar in the urban context.
- C. THAT Council direct staff to report back on the opportunities, and regulatory considerations associated with enabling direct to consumer plug-in and small-scale distributed solar generation systems (including balcony, patio, and backyard installations) in anticipation of certification.
- D. THAT the report includes recommendations for a regulatory policy framework that would:

⁴ BC Hydro | Active Innovation demonstrations
<https://www.bchydro.com/powersmart/research-innovation/active-demonstrations.html>

- a. Enable the Right to Charge;
 - b. Permit safe and standardized interconnection of small-scale solar systems to household electrical infrastructure and the broader grid;
 - c. Identify necessary updates to City bylaws, electrical permitting, and inspection processes;
 - d. Support collaboration with BC Hydro, Technical Safety BC, and other relevant authorities on interconnection standards, and safety certification;
 - e. Explore approaches to ensure equitable access, including for renters, strata residents, and low-income households; and
 - f. Consider opportunities to streamline approvals and reduce barriers for residents seeking to install plug-in solar systems.
- E. THAT the report assesses how these emerging technologies could complement existing City initiatives under the Climate Emergency Action Plan and Council's previous direction on expanding renewable energy supply, without duplicating existing work.
- F. THAT staff include in their report an assessment of how enabling the right to charge with distributed direct to consumer plug-in solar technologies could contribute to energy sovereignty, grid resilience, emissions reduction, and local economic benefits for Vancouver residents and businesses.

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